



The MG-A8 marine antenna provides exemplary GNSS signal tracking while not being susceptible to signal jamming from other sources, such as INMARSAT communications.

The MG-A8 offers GPS L1 and L2 signal reception as well as L-Band corrections and INMARSAT rejection. It gives users an opportunity to use dual-constellation dual-frequency features and L-Band DGPS corrections for high accuracy in everyday work. The MG-A8 antenna is a compact and lightweight solution for marine and navigation applications.

The MG-A8 antenna can be used in DGPS mode for meter level navigation purposes but can also be used for RTK centimeter level positioning in areas where there is a network of reference stations available to support this level of precision.

Operating Frequency Range	
Upper band	1520...1590 MHz
Lower Band	1215...1260 MHz
Out of Band Rejection	
GPS L1	± 100 MHz -40 dBc (typical)
GPS L2	± 200 MHz -50 dBc (typical)
	1625 -1660 MHz -30 dBc (typical)
Gain, Noise Figure and VSWR	
Gain at Zenith (90°)	GPS L1 5 dBic GPS L2 5 dBic Omnistar 4 dBic
Gain Roll-Off (from Zenith to Horizon)	GPS L1 -7.5 dB GPS L2 -10 dB Omnistar -7.5 dB
LNA Gain	35 dB (typical)
Noise Figure	1.5 dB (typical)
VSWR	≤ 2.0 : 1
Differential Propagation Delay L1, L2	7 ns (maximum)
Nominal Impedance	50 Ohm
Environmental	
Temperature	Operating: -40°C to 70°C; Storage: -40°C to 70°C
Water / Dust Rating	IPx7 IEC 60529 / IP6x IEC 60529
Vibration	1) MIL-STD-810G, Method 514.6, Category 4 – Common carrier, Table 514.6C-II, 1 hours per axis 2) MIL-STD-810G, Method 514.6, Category 21 – Watercraft-marine vehicles, Figure 514.6D-9, 2 hours per axis
Mechanical Shock	Multiple shocks, IEC 60068-2-29, Test Eb, 25g / 6µs, 1000 bumps per axis
Humidity	MIL-STD-810G, Method 507.5, Procedure II, item 2.4.2, Table 507.5-IX, Aggravated cycle
Salt Fog	MIL-STD-810G, Method 509.5, 5% salt solution concentration, 96 hours
RoHS Compliant	Yes
Power	
Input Voltage	3 to 18 VDC
Power Consumption	60 ± 5 mA (typical)
Physical	
Diameter	89 mm
Radius	50 mm to measuring nozzle (SHMM)
Height	102.5 mm (without adapter) 205 mm (with universal aluminum or plastic adapter) 180 mm (with marine plastic adapter)
Weight	250 g (antenna without adapter) 80 g (universal aluminum adapter) 60 g (universal plastic adapter) 100 g (marine (flange) plastic adapter) 330 g (antenna with aluminum adapter)
Mount	M24 x 1.5 external thread (without adapter) 5/8-11 internal thread (with aluminum or plastic universal adapter) Flange with 3 hole of 6.5 mm diameter (with marine adapter)
Connector	TNC female



For more information:
topconpositioning.com/mg-a8

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